



6Gb/s SATA Enterprise 2.5" SSDs

## CloudSpeed Eco™ SATA SSDs

Cost-effective storage for read-intensive workloads with high performance and low power consumption.

### Features

- Guardian Technology™ Platform
- Powerful Error Correction and Detection
- Consistent Performance Over Warranted Lifetime
- High-Reliability Backup Power Circuitry
- Data Path Protection
- Data Fail Recovery
- Thermal Management
- Comprehensive S.M.A.R.T. Attributes

### Read-Intensive Application Workloads

- Web Servers
- Web 2.0 Content Repository
- Photo Sharing
- Media Streaming
- Video on Demand (VOD)
- Cloud Computing

CloudSpeed Eco™ SATA SSDs from SanDisk are specifically designed for entry level enterprise, hyperscale and cloud data center server and storage environments. Based on 19nm cMLC NAND flash, these SSDs are optimized for read-intensive applications, such as Web Servers, Web 2.0 Content Repository, Photo Sharing, Media Streaming, Video on Demand (VOD), and Cloud Computing. CloudSpeed Eco SATA SSDs deliver up to 5x higher endurance than competing client MLC SATA SSDs.

Available in capacities of 240GB - 960GB\*, CloudSpeed Eco SSDs feature a native 6Gb/s SATA interface and provides data transfer rates of up to 475/450 MB/s\*\* sequential read/write and performance up to 80K/14K IOPS random read/write. CloudSpeed Eco SSDs deliver superior read performance with consistent QoS and low power consumption for mission-critical, read-intensive application workloads. SanDisk's proprietary Guardian Technology™ Platform delivers full data path protection by enabling cMLC NAND flash to provide greater endurance, ensure data integrity, and protect data against power loss, reducing the total cost of ownership (TCO).

### Guardian Technology™ Platform

CloudSpeed Eco SATA SSDs are powered by SanDisk's proprietary Guardian Technology Platform, a suite of enterprise features that include FlashGuard™, DataGuard™ and EverGuard™ technologies.

FlashGuard Technology combines Aggregated Flash Management, which treats all flash elements as a single system, and Advanced Signal Processing, which dynamically adjusts flash parameters throughout the life of the SSD, to reliably extract significantly more life from cost-effective 19nm cMLC flash, making it suitable for read-intensive application workloads.

DataGuard Technology features full data path protection, safeguarding user data from corruption along all data paths in the SSD.

EverGuard Technology protects against loss of user data in the event of unexpected power interruptions using a 3rd generation backup power circuit design and high-reliability discrete capacitors.

**SanDisk®**

## CloudSpeed Eco™ 2.5" SATA SSDs Preliminary Specifications subject to change

Performance	
Interface	SATA 6Gb/s
Sequential Read/Write (MB/s)**	Up to 475/450 MB/s <sup>1</sup>
Random Read/Write (IOPS)	Up to 80K/14K IOPS <sup>2</sup>
Access Time	< 2.0 ms
Capacity	
19nm cMLC User Capacities*	240GB, 480GB and 960GB
Reliability	
Data Reliability (BER)	1 unrecoverable error in 10 <sup>17</sup> bits read <sup>3</sup>
MTBF***	2 Million Hours
Data Fail Recovery	Recover up to 1 NAND flash erase block of data
Power Fail Recovery	High-reliability backup-power circuitry
Temperature Monitoring	Performance throttling upon warning/critical temperature
Warranty****	The lesser of 3 years or maximum endurance used
Endurance	
DWPD (Random/Workload)****	1 DWPD <sup>5</sup> for 3 years
Power	
Vcc	5V ± 5%
Active (Typ)	5.2W
Idle	2.2W
Environmental	
Shock (operating)	1000g @ 1.0 msec, 1 shock along each axis, X, Y, Z, in each direction
Vibration (operating)	2.17 g rms 7-800 Hz
Operating Temperature	0° C to 70° C (internal)
Storage Temperature	-40° C to 95° C
Humidity	5% to 95%, non-condensing, relative humidity <sup>4</sup>
Altitude	-200 feet to 10,000 feet
Mechanical	
Length	100.2 mm
Width	69.85 mm
Height	7 mm

(1) Based on a 128KB transfer rate, using Oakgate SVF exerciser  
(2) Based on 4KB transfer rate using Oakgate SVG exerciser  
(3) The JEDEC 64.8 specification requires 1 in 10<sup>17</sup> for enterprise-class SSDs  
(4) Based on MIL-STD 883C Method 2000.1  
(5) Endurance @ Jeddac 219 Workload

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For more information, please visit:

[www.sandisk.com/enterprise](http://www.sandisk.com/enterprise)

# SanDisk®

At SanDisk, we're expanding the possibilities of data storage. For more than 25 years, SanDisk's ideas have helped transform the industry, delivering next generation storage solutions for consumers and businesses around the globe.

951 SanDisk Drive | Milpitas | CA 95035 | USA

## CloudSpeed Eco™ 2.5" SATA SSDs - Ordering Information

Part Number	Capacity
SDLFNDAR-240G-1Hxx	240GB
SDLFNDAR-480G-1Hxx	480GB
SDLFNCAR-960G-1Hxx	960GB

#### xx - Pack Out Option:

Generic/Sample: A2  
10 Pack: 02  
Bulk Pack: 03

Specifications subject to change without notice.

\*1 GB = 1,000,000,000 bytes. Actual user capacity less.

\*\*Up to stated speed. Based on internal testing; performance may vary depending upon drive capacity, host device, OS and application.

1 megabyte (MB) = 1 million bytes.

\*\*\*MTBF - Mean Time Between Failures based on parts stress analysis.

\*\*\*\*Warranty/DWPD - The lesser of 3 years from the date of manufacture of the product or the date on which the product's relevant endurance thresholds set forth in the product specifications are reached.

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